



# Gorilla Journal

*Journal of Berggorilla & Regenwald Direkthilfe*

No. 58, June 2019

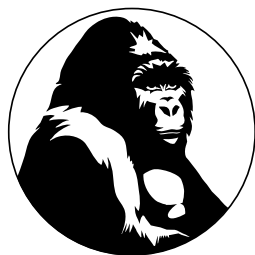


**End in Sight for  
the Sarambwe  
Conflict**

**The Itombwe  
Nature Reserve  
Faces Many  
Threats**

**Saving Cross  
River Gorillas  
through Radio  
Drama**

**Secrets of  
Western Lowland  
Gorilla Social  
Behaviour**



# BERGGORILLA & REGENWALD DIREKTHILFE

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### Gorilla Journal 58, June 2019

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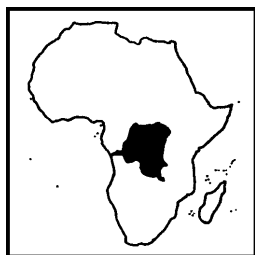
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### End in Sight for the Conflict over the Sarambwe Nature Reserve

The Sarambwe Nature Reserve is well known for its location on the border between the Democratic Republic of the Congo and Uganda, and its contiguity with Uganda's Bwindi Impenetrable National Park (BINP). The reserve covers an area of nearly 900 ha and is full of animals. Among them are 6 species of primates: mountain gorilla (*Gorilla beringei beringei*), chimpanzee (*Pan troglodytes*), baboon (*Papio anubis*), black-and-white colobus (*Colobus guereza*), blue monkey (*Cercopithecus mitis*) and red-tailed monkey (*Cercopithecus ascanius*).

Based on the level of encroachment, the reserve can be divided into

three blocks in a south to north direction. The southern block, which borders the BINP, includes intact primary forest; however, about half of the central block has been encroached, while almost all of the northern part has been encroached. Gorillas and the largest groups of animals frequently range in the first two parts. The third block, located north of the Sarambwe ranger post, consists of fallow fields regularly cultivated by Ugandans under the protection of their army. This area contains a few forest islands where red-tailed monkeys, baboons and some bush pigs occur.

Until 1998, before the ICCN (Congolese Institute for Nature Conservation) began to manage this reserve, the boundaries between the Congo and Uganda were well marked by cairns. However, starting in that year, the cairns and their concrete founda-

### Virunga National Park Reopens

After being closed last year due to security fears the Virunga National Park has now reopened. "We have taken enough time to be sure of an improvement of security for visitors," the park's director, Emmanuel de Merode, was quoted by Reuters as saying. The park was reopened to tourists on 15 February 2019.

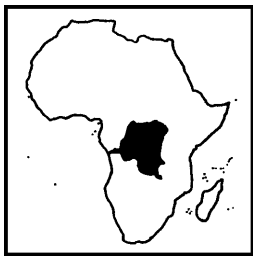
A deteriorating security situation caused Africa's oldest national park to close in June 2018. Five rangers and a driver were killed in an attack in the Central Sector of Virunga in April. In the following month, two British tourists and their Congolese driver were kidnapped by armed gunmen while travelling through the park. A ranger accompanying the group was severely wounded during the attack and later succumbed to her injuries. The Britons and their driver were released unharmed three days later.

The park authorities have initially reopened only the most stable regions of the park to allow tourists access to the areas inhabited by the mountain gorillas and to the crater area of Mount Nyiragongo. The 7,800 km<sup>2</sup> national park is regarded as one of the world's most dangerous: armed groups still control much of the territory in and around the park. More than 175 rangers have been killed while protecting the park since its creation in 1925, with the most recent death occurring within only a month of the park's reopening.

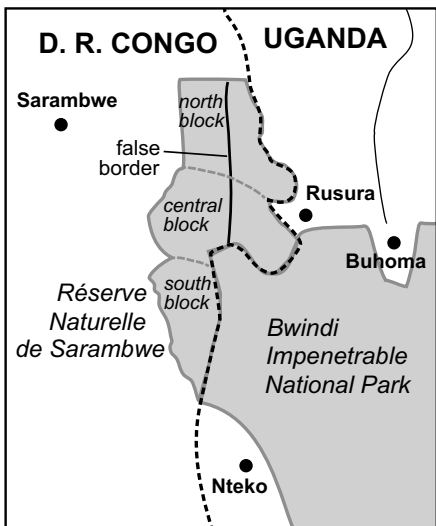
Since tourism initiatives were relaunched in 2014 the park has attracted over 17,000 visitors. The proceeds from tourism now make up more than 20 % of the park's US\$ 9 million annual operating budget.

*Summary of several articles by Callum McCabe*





# D. R. CONGO



### Zoning of the Sarambwe Nature Reserve with false boundary

Map: Angela Meder with WWF map adapted by Claude Sikubwabo

tions were ripped out. Some people believed that the farmers had hidden precious materials and placed markers so as not to forget where they had put them. So they ripped out the markers and dug over the area around them.

As nothing of value was found, the diggers left again, abandoning their work. It was not until a few years after these events that Ugandan nationals started gradually encroaching into the reserve, eventually occupying about one third of its area. The Ugandans put up border markers in the reserve but not in the correct place (see map).

From 2002 until very recently, the encroachment was addressed. Regular reports were sent to the responsible authorities, Ugandan farmers were arrested on several occasions; planks, machetes, hoes and pit saws were seized; dogs were killed, and Ugandan poachers were arrested. Most recently, they were handed back to their owners in Uganda in the presence of the Ugandan authorities and their army. At some point, ICCN rangers were taken prisoner by Ugandan soldiers and taken into Uganda before being released.

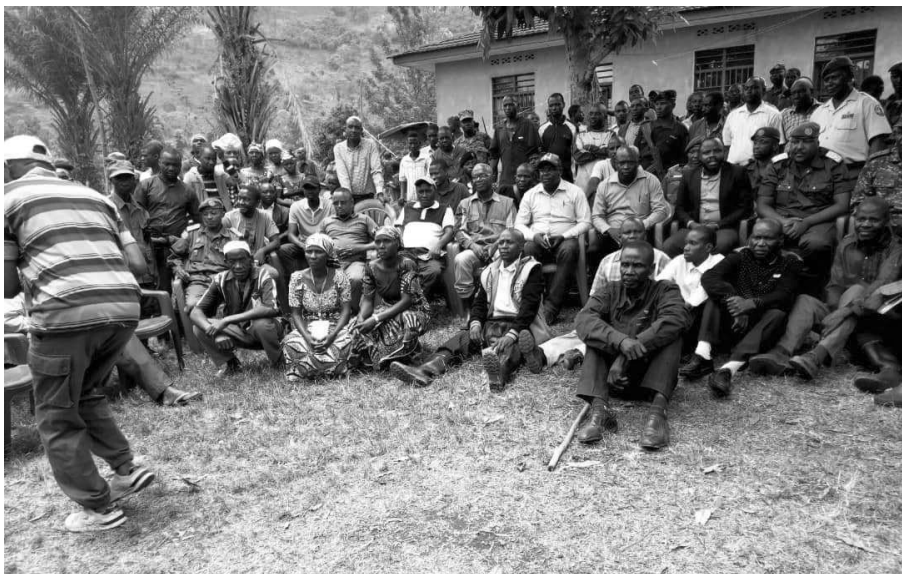
These incidents were reported to high-level representatives of both countries and to international organizations. Meetings between Ugandan and Congolese local residents were organ-



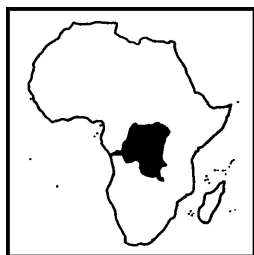
**The team of trackers, rangers, military and local authorities exploring the border**

ized. During the sensitization missions it turned out that there was no direct conflict between the two local populations. The problem was more a disagreement over the location of the border in the area of the Sarambwe Reserve, which had led to the conversion of the forest into fields, the sawing of timber, seasonal bush fires, cultivation within the reserve, hunting, poaching and the grazing of domestic animals.

The wonderful news is that the encroachment and the conflict over the reserve and the national border have come to an end. The involvement of very high-level authorities of both states has enabled a final solution with the recognition of the border between the two countries. Local technical teams composed of local chiefs, community leaders, elders, rangers and trackers from the Sarambwe Reserve on the one side and local Ugandan chiefs, Bwindi conservationists and rangers, and local Ugandan army leaders on the other side managed to reach a preliminary agreement on the



**Participants of the meeting to agree on the border held at the Sarambwe ranger post**



# D. R. CONGO

border. A major meeting involving all of these stakeholders was held at the Sarambwe ranger post prior to the official recognition of the border.

To date, a large part of the border has been clarified and the locations for cairns have been indicated. A meeting to agree the remainder of the border is scheduled for 24 April 2019. Ugandan farmers have stopped farming fallow fields within the reserve.

*Claude Sikubwabo Kiyengo*

## The Itombwe Nature Reserve Faces Many Threats

Regretfully, we must draw the attention of the conservation community to an observation made during our last environmental education mission on 29 March 2019. On the Mwenga–Kamituga section of the road, just 3 km from the city of the same name, we observed yet another threat faced by the Itombwe Nature Reserve (INR) – in addition

to the threat posed by BANRO (see Gorilla Journal 57). There is another new industrial mining project within the INR, in the Wakabango I chiefdom in Shabunda territory, towards Kitindi, where a Chinese company intends to establish a gold mine.

Considering the heavy machinery that has been brought in for the purpose of industrial scale mineral exploitation, this mine will wreak havoc on the natural resources of the INR. There is no hope for the survival of the INR unless something is done to prevent the ecological damage the mine will cause.

Another threat that is exerting a slow but continuous pressure is the need for firewood. People cut trees to obtain firewood without considering the ecological requirements for the prevention of deforestation.

This practice is slowly pushing the forest back towards the INR by stripping all the surrounding hills of their trees. When the forest around the settlements has gone, the forest in the

INR will be targeted to meet the need for firewood.

This practice indicates a need for socio-economic support from the ICCN for the population living in and around the INR. There is an urgent need to consider how mechanisms may be established for the successful implemen-



**Radio programmes are an important way of communication**

*Photo: John Baliwa*

## Redevelopment at Sarambwe

The misunderstandings regarding the border between the Sarambwe Reserve and Uganda have now been resolved and the boundary line must once again be marked out. Since 13 May, mixed teams have been undertaking this work. Our help is needed here:

- The border needs to be defined with permanent boundary markers.
- Many thorn bushes placed by the Ugandans that mark the incorrect border need to be removed.

This work alone is estimated to cost 3000 Euros. There are,

however, several further requests from Sarambwe:

- The trackers require 8 sewing machines; when their overalls tear in the forest they must repair them themselves.
- The following items are required for the patrol post: mattresses, blankets, desks, and office chairs.
- The gear used by the trackers for the gorilla surveys has been worn out;

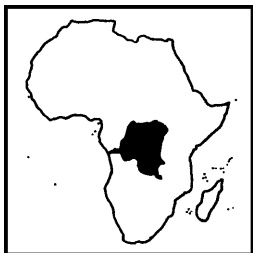
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they require new gumboots and overalls.

### Help us to protect the mountain gorillas in Sarambwe and preserve their habitat!

You are also welcome to donate via PayPal if you prefer this: <http://www.berggorilla.org/en/help/donate>

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## D. R. CONGO



**The INR has equipped a new office**  
*Photo: Felix Mchinga*

tation of conservation/development microprojects, and how to improve the dissemination of information on the environment.

To overcome the obstacles to communication, the INR – with financial support from its partner organisation Berggorilla & Regenwald Direkthilfe (B&RD) – uses two means of dissemination: radio and word of mouth. By these means, environmental education activities are conducted among the communities living in and around the INR: in schools, institutions and all social groups (artisanal miners, hunters, bushmeat vendors, tribal authorities, political and administrative officers, military and police authorities). The radio programmes we produce need to reach all the groups with a stake in the INR, but will also reach those further away, as far as the radio signals can be received.

The infrastructure in the Itombwe Nature Reserve is still very rudimentary: the only building has been constructed by WWF as a new patrol post. For almost 10 years, the office expenses were covered by WWF through a WWF/USAID/CAFEC project and a WWF/NL project. These two projects

were completed in February 2019. B&RD has stepped in by topping up the staff bonus payments. In addition, B&RD has recently agreed to pay the rent for the new office in Mwenga, which has been in use since 5 April 2019.

*Jean Claude Kyungu*

### Ivory Trade in Uganda

The Ugandan media recently announced the arrest of two Vietnamese individuals. As members of a smuggling network, they had illegally exported 750 pieces of ivory and thousands of pangolin scales from South Sudan into Uganda. These had been hidden in hollow tree stumps and sealed with wax, packed into three shipping containers. The authorities had obviously been tipped off. This amount of ivory alone corresponds to about 300 killed elephants.

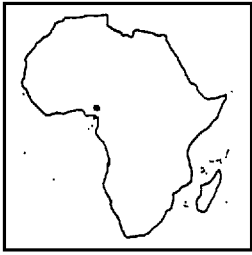
Just 120 years ago, about 10 million elephants lived on the African continent. And today? Only 4 % remain. And the poaching continues. On average, 60 elephants die every day, primarily in order to satisfy the Asian market's demand for ivory.

Beyond the direct control of poaching in national parks and wildlife sanctuaries by conservation officers, the targeted apprehension of smuggling networks is gaining traction. 15 tons of ivory were confiscated during the last 5 years in Uganda alone. Yet only a very small part of the ivory originates there. The majority comes from South Sudan, the DRC and the Central African Republic; countries with weak institutions and destructive social conflict. The airport in Entebbe, Uganda, seems to serve as a trafficking hub for the ivory mafia. Authorities there are currently discussing whether the punishment for poaching and illegal wildlife trade should be raised from a maximum of 5 years to life-long imprisonment.

After China banned the ivory trade earlier in 2019 and Hong Kong aims to do so in 2021, there is reason to hope that restrictions on trade and import will benefit the elephants. There is, of course, a possibility that the ivory trade will shift to other Asian countries and that the illegal trade will continue. Yet the falling kilo price for ivory in China (from US\$ 2,100 in 2014 to US\$ 740 in 2017) indicates that demand is weakening. However, only when this price goes down to zero and the business is no longer profitable will the slaughtering of elephants become a subject of history.

*Wilhelm Moeller*





## CROSS RIVER

### Saving Cross River Gorillas in Nigeria through Radio Drama

Hunting, habitat loss and fragmentation are the main threats to the survival of the Cross River gorilla *Gorilla gorilla diehli* (Bergl 2012; Imong et al. 2014). Although protected by law, gorillas are still occasionally killed by hunters and may be fatally injured by snares set for smaller animals (Dunn et al. 2014). With only approximately 300 individuals remaining, the loss of even a few individuals to hunting represents a serious threat to their long-term survival. Cross River gorilla habitat is increasingly being destroyed and fragmented. Farmers in the region typically clear new portions of forest each year to establish new farms or expand existing ones to increase production. Illegal logging, indiscriminate use of fire in the dry season, and building new roads also threaten gorilla habitat. If continued, deforestation is expected to reduce gorilla habitat, isolate sub-populations, and compromise the long-term viability of the population. With the human population increasing within the landscape occupied by Cross River gorillas, saving this critically endangered gorilla subspecies requires actions that influence positive attitude and behaviour change.

#### My Gorilla-My Community Radio Program

In addition to strengthening law enforcement, the Wildlife Conservation Society (WCS) has been implementing a conservation education program in the Cross River gorilla landscape in Nigeria since 2001. Initially school-based, the program evolved to include the use of conservation films and village meetings to create awareness and strengthen support for Cross River gorilla conservation. Building on this effort, WCS launched the radio program

*My Gorilla-My Community* (MGMC) in 2015 in collaboration with PCI Media Impact, leveraging the power of media and storytelling to inspire positive change in attitudes and behaviour towards Cross River gorillas.

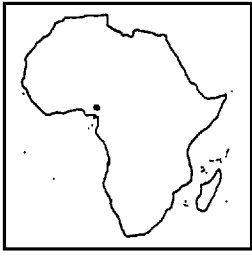
Five seasons of the program, consisting of 26 episodes each, have been produced and broadcast on local radio stations to date, with a target audience of about 100,000 people within and around the Cross River gorilla landscape, and over 500,000 people across the entire Cross River State. A sixth series of the program is currently being produced. MGMC utilizes PCI Media Impact's *My Community* approach to communications, focusing on developing the capacity of local coalitions to produce public awareness and behaviour change through Social and Behavioural Change (SBCC) campaigns. The methodology is comprised of an entertainment-education component (in this case, the radio drama), an interpersonal communication piece (a "radio magazine" or call-in show), and a series of community engagement activities.

Because the *My Community* model respects existing and ongoing local research, the program was able to build on information that had already been gathered by WCS over many years. These findings on the Cross River gorilla were then combined with participatory investigative research from meetings and interviews with members of the target audience, including results of a baseline survey of knowledge, attitudes and behaviours. The project team used the identified issues, attitudes, behaviours, and information gaps to develop entertainment media and campaign materials. Based on the formative research, the project team determined the key behaviour changes targeted by the campaign. The program targets negative behaviours such as hunting of endangered species, encroachment on protected areas, unsustainable farming practices, illegal logging, unsustainable extraction of non-timber forest products, and violation of forest and wildlife laws. In place of these, it promotes good forest governance, sustainable agricultural practices, preservation of cultural practices



MGMC recording

Photo: WCS Nigeria



## CROSS RIVER

that benefit conservation, support for law enforcement, and community conservation.

A key component of the MGMC program is a Drama series, which is set in a fictional community (“Boda”) which represents the geographical range of the Cross River gorilla and attempts to mirror everyday lives of people living within the target communities. Dramas are effective in encouraging the desired changes because they allow for complex and integrated messages to be understood and remembered. The fictional story appeals to emotion and presents information in a less confrontational manner than traditional media, facilitating learning and encouraging audiences to take action. Dramas also help establish social norms by provoking interpersonal communication.

While listening to a serial drama, the audience is allowed time to form bonds with characters whose thinking and behaviour regarding various environmental and conservation issues gradually evolves throughout the storyline in a positive way. Audience members forge emotional ties to Entertainment Education program characters, and these ties influence values and behaviours more forcefully than the purely cognitive information provided in documentaries. Next to peer and parental role models, role models from mass media are of particular importance in shaping cultural attitudes and behaviour. The program also has an interview segment that provides a platform for interaction between conservation experts, political and community leaders, and the audience.

Once broadcast, the program ran in parallel to community action campaigns that support the key messages through events, written materials, speaker-series, school visits, and other local activities. Feedback from listener groups established in target communities plays a crucial role in monitoring the program and determining what is

working well and what needs to be improved. A post-broadcast survey of the target communities is planned to evaluate the impact of the program.

### Changing Attitudes and Behaviour towards Gorillas and their Habitat

To establish a baseline for future monitoring of the impact of the program, a Knowledge, Attitudes, and Behaviour (KAB) survey was completed in 2014, prior to the MGMC program’s inaugural broadcast. The KAB survey will be repeated in 2019. Although a formal evaluation of the impact of our education and behaviour change efforts has not been conducted, there are indications that WCS’ education efforts, including the MGMC, are producing positive results. In an informal survey conducted in 2017, over 69% of respondents stated that as a result of listening to MGMC, they were more inclined to report illegal activities such as hunting of endangered animals to the authorities. Over 60% reported having engaged in interpersonal communication and encouraging community members to support gorilla conservation.

*Strengthening community conservation of the Mbe Mountains:* Approximately one-third of the Cross River gorilla population lives on community land – outside protected areas – where they face increased risk of hunting. In such areas, such as the Mbe Mountains in Nigeria, community support is critical to their survival. Since 2005, nine surrounding communities have managed the Mbe Mountains unofficially as a community wildlife sanctuary to protect the 25–30 resident gorillas. The MGMC radio program has regularly featured community leaders, women, and youth from these communities in the interview segment of the program, and the drama segment often features community conservation themes. Despite not having any formal protection, no gorillas have been killed in the Mbe Mountains in the last two decades.

*Communities prevent the killing of a Cross River gorilla outside the Afi Mountain Wildlife Sanctuary:* In 2017, a lone male Cross River gorilla was sighted by villagers on the outskirts of two villages more than 10 km outside the Afi Mountain Wildlife Sanctuary (AMWS). Without the protection offered by ranger patrols within the AMWS, this “blackback” gorilla faced serious risk of being killed by the villagers for bushmeat or for the perceived threat to people and crops. Fortunately, rather than killing this young and brave gorilla, the villagers tolerated it. The village chiefs reported its presence to protected area staff and ensured that the gorilla was protected from any attack until it safely returned to the AMWS. Although only anecdotal, the villagers’ willingness to protect the gorilla rather than kill it may have been influenced by the awareness created by WCS’ long-standing education program.

WCS Nigeria will continue to implement the MGMC and other interventions to secure the long-term survival of the Cross River gorilla.

*Inaoyom Imong and Hillary Chukwu*

*Funding for My Gorilla-My Community has come from a number of donors, including the US Fish & Wildlife Service, Whitley Fund for Nature, Critical Ecosystem Partnership Fund, Kolmården Fundraising Foundation, and the German Embassy in Nigeria.*

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# GORILLAS

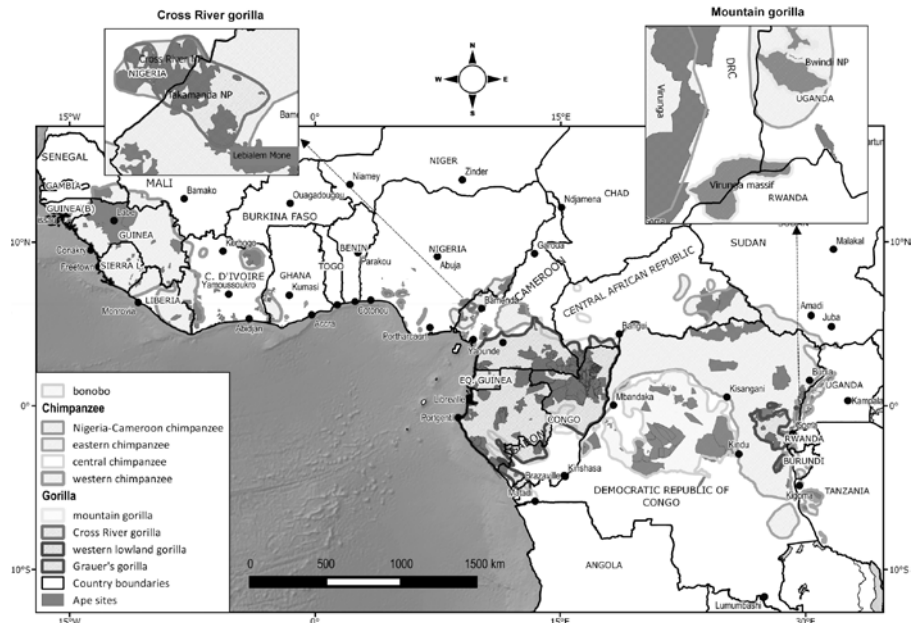
## GRASP & IUCN Great Apes Status Report 2018: Summary

Great ape populations in Africa and Asia are severely threatened by the combined impacts of habitat loss, poaching, illegal trade, and disease. Since great apes have slow rates of reproduction, populations are unable to cope with significant and continued losses of individuals. Despite formal legal protection, law enforcement remains a major challenge in many countries and poaching, especially for the illegal domestic trade in bushmeat, is the most significant threat to the survival of most great apes. This trade is mainly domestic, though some international trade, primarily between neighbouring countries, does occur. The great apes (bonobos, chimpanzees, eastern and western gorillas, Bornean, Sumatran and Tapanuli orangutans) face significant conservation threats and are listed as either Endangered or Critically Endangered on the IUCN Red List of Threatened Species (IUCN 2018) and on Appendix I of CITES (CITES 2017).

In response to growing conservation concerns, the Great Apes Survival Partnership (GRASP) and the IUCN SSC Primate Specialist Group produced a report for the Convention on the International Trade of Endangered Species (CITES) Secretariat on the status of great ape taxa and the relative impact of illegal trade and other pressures on their status. This report assessed distribution and abundance trends and evaluated primary threats to their survival, in order to highlight conservation challenges and provide recommendations for future practice (GRASP & IUCN 2018).

### Species Trends

The report found that all 14 great ape subspecies, with the single exception



**Geographic distribution of African great ape taxa and sites (IUCN SSC A.P.E.S. database, 2017)**

*Map: Max Planck Institute for Evolutionary Anthropology*

of the mountain gorilla, are declining. Ten subspecies are now listed as Critically Endangered. Current rates of decline stand at up to 7% per year, with more than half of great ape subspecies declining at over 4% per year. The increase in mountain gorilla populations, at an annual rate of 3.7%, represents a significant conservation success enabled by effective protected areas, intensive law enforcement and benefits to the communities. However, all other great ape taxa are extremely vulnerable to the impacts of human activities. Much remaining habitat is under threat due to expanding industry and related infrastructure development, and up to 80% of the range of many taxa lies outside protected areas. The most important direct threats to great apes are habitat loss, degradation and fragmentation, bushmeat poaching and, for some taxa, infectious disease. The relative importance of these threats varies by taxon and location (for more information see full report). A thorough

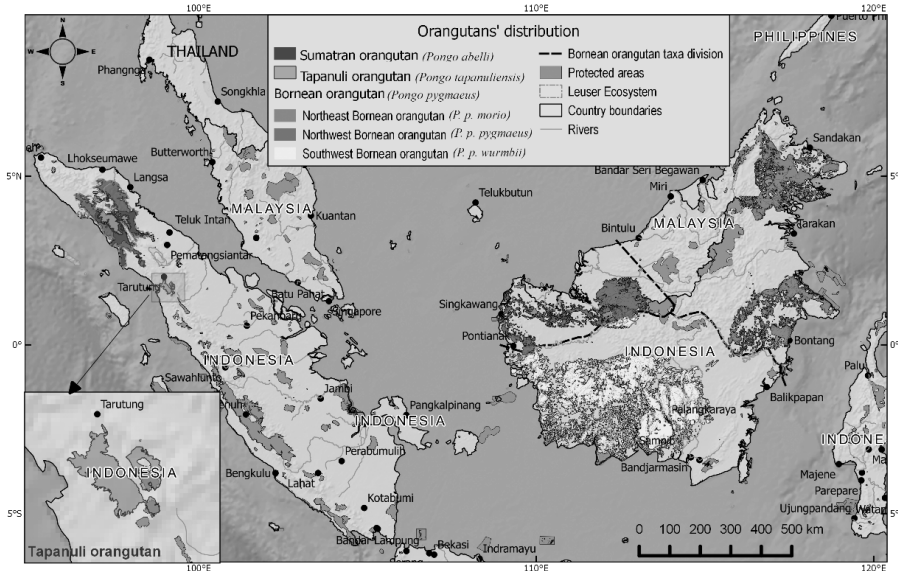
understanding of local circumstances is required to address threats to great apes, which cannot be considered in isolation. However, some challenges are common across great ape range states.

### Habitat Loss

Great apes are dependent on forest ecosystems which are increasingly threatened by industrial agriculture, resource extraction and infrastructure development. There exists a significant challenge in reconciling conservation priorities with urgently needed economic development. Many great ape range states are rich in natural resources and expanding extractives sectors are one of the key drivers of population declines. Alongside the direct impact of habitat loss caused by mines, logging concessions, roads, transmission lines and dams; new development attracts huge numbers of people in search of new opportunities. This often leads to uncontrolled additional development,



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**Geographic distribution of Asian great ape taxa (orangutans; IUCN SSC A.P.E.S. database, 2017)**

Map: Max Planck Institute for Evolutionary Anthropology

including artisanal mining and farming. While these industries can help lift people out of poverty, operations must be sensitive to the biodiversity values and ecosystem services on which local communities and wildlife heavily rely. Inclusive integrated land-use planning processes and implementation of biodiversity-friendly business practices are required if such economic activities are to be accommodated sustainably in great ape habitats.

A number of initiatives seek to minimize the negative impacts of industrial activities on biodiversity through certification schemes, best practice mitigation measures and performance standards. These initiatives and best practices will be central to future work to minimise impact of growing industries on great ape populations, for example, as oil palm development becomes a major threat to African great apes, as it has been for Asian great apes. The Status Report recommended that CITES parties legally oblige all private actors in the energy, extractives and agricultural sectors to comply with na-

tional and international best practices and enforce clear penalties for non-compliance.

However, the most sensitive ecosystems and biologically-rich great ape habitats should be legally protected, ideally through designation as off-limits to habitat modification. The report therefore recommended that CITES parties should review relevant national and regional level legislation, policies and sanctions to ensure adequate protection of great apes through improved legal frameworks for conservation. Economic viability is a central issue to conservation success. Tourism with great apes can be a means of generating revenue to fund conservation efforts and to protect great apes, and the success of mountain gorilla tourism has shown that conservation-based great ape tourism has considerable potential. However, it is unclear whether this success will be replicable within other contexts. Tourism comes with significant risks and if it is not based on sound, socially-conscious conservation principles, economic objectives

are likely to take precedence, with detrimental consequences for great apes. In order to enable implementation of its recommendations, the report appealed to private and public donors for increased financial support.

## Bushmeat Poaching and Trade

Poaching is a key threat to all great ape taxa. Many wildlife species are commonly eaten in West and Central Africa, and a huge network for bushmeat trade has developed, where large numbers of animals are hunted in remote forest areas and brought to industrial camps, towns and cities for profit. Though great apes are not commonly a primary focus of bushmeat hunting, populations in West and Central Africa are highly threatened by the commercial bushmeat trade, particularly to supply workers in the growing extractives industries. Poaching of orangutans for food also occurs extensively in Borneo. Although funding has gone into projects promoting alternative sources of protein, the impact of these investments has rarely been meaningfully quantified. The Status Report therefore recommended development of further research into dietary alternatives to bushmeat and improvement of impact monitoring to accurately determine efficacy.

The volume of bushmeat that crosses international borders is difficult to estimate, as the majority of transborder trade in great ape meat is across neighbouring country boundaries where detection is weak. More research is required to determine how much great ape meat is involved in this trade, in order to quantify conservation impacts.

Great apes are highly symbolic in the global illegal wildlife trade, and trade in live great apes has been recognized as a threat to their survival since the 1980s. However, until recently, there has been a significant lack of verified quantitative and qualitative data on the trade in great apes and bushmeat, in-



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cluding the circumstances surrounding confiscations. This has made it hard to define long-term strategies to combat this high-profile issue. To address this gap, GRASP launched the Apes Seizure Database in 2016 (<https://database.un-grasp.org/>), in collaboration with the World Conservation Monitoring Centre. This database will enable quantification and tracking of the extent of the illegal great ape trade for the first time and provide analytics for future CITES reports.

Further development of its capacities will work hand-in-hand with the application of new advances in genetic recognition technology, which could improve the identification of bushmeat and the origin of live animals to facilitate potential repatriation. The Status Report recommended that CITES parties and great ape conservation partners, including national law enforcement agencies and wildlife departments, NGOs and researchers, should strive to utilise and contribute to the GRASP Apes Seizure Database in order to facilitate effective analysis of illegal trade and inform future law enforcement efforts.

## Law Enforcement

Currently, law enforcement is insufficient to halt illegal trafficking of live great apes or their body parts. Arrests and convictions for holding or selling great apes or bushmeat rarely occur. Only 27 arrests for great ape trade were made between 2005 and 2011, one quarter of which were never prosecuted. At least 440 formal confiscations of orangutans by law enforcement agencies between 1993 and 2016 resulted in only 7 successful convictions. Understanding the whole chain of actors involved in the bushmeat trade is necessary to address the threat that it poses. E-commerce has given suppliers unprecedented access to new markets, and the development of social media outlets is responsible for an explosion of illegal

trade in numerous species sold illicitly via the Internet.

Collaborative efforts to improve law enforcement are underway in several countries. Partnerships between EAGLE (Eco Activists for Governance and Law Enforcement) members and national governments have resulted in some success, but continued effort is needed. The Status Report therefore recommended that CITES parties increase law enforcement efforts including: corruption mitigation strategies, training of local practitioners and rangers, prosecution evidence gathering, the use of modern forensic methods, and training of customs agents. It urged member states to ratify and fully implement the UN Convention against Transnational Organized Crime and the UN Convention against Corruption, and to solicit the support of national and international NGOs to ensure appropriate judiciary process in wildlife law enforcement. It noted that legally binding transboundary agreements and collaborative judiciary proceedings are needed, with respect to evidence exchange, sentencing and extradition, to address illegal cross border trade in live apes, ape parts and bushmeat.

## Conclusion

Despite significant effective conservation work at many sites within great ape range states, almost all great ape taxa continue to decline. The drivers of this trend will continue to increase in intensity and extent in the coming decades. Habitat degradation due to expanding agriculture, industry and infrastructure is closely linked with unsustainable large-scale hunting for bushmeat. Evidence also indicates that the illegal trade in live great apes is a secondary effect of habitat loss and poaching. Much remaining great ape habitat lies within areas with no formal protection, and encroachment of industry and poaching remains a problem within many protected areas.

A holistic approach is required to tackle these challenges effectively, with coordination between actors involved in law enforcement and conservation at regional, national and international levels. Addressing any one threat alone will not be enough to achieve conservation goals. Great ape habitats continue to be degraded because national-scale spatial planning often does not take conservation into account and because law enforcement relating to illegal trade and the protection of natural areas remains weak. Further understanding of the drivers of illegal bushmeat trade and illegal live ape trade by criminal cartels is required. Improved reporting and data analysis through the development of the Apes Seizure Database will begin to build a reliable knowledge base with which to address this issue.

To be successful, conservation and law enforcement efforts require high-level political commitment, sustained financial support, cross-sectorial collaboration and inclusion of all stakeholders. Integrated partnerships which can engage with industry to promote best practice methods, and engage with social issues to address the root causes of bushmeat poaching, are urgently needed to halt current population declines and prevent the irreversible loss of all great apes.

*George Lee Harris and  
Johannes Refisch*

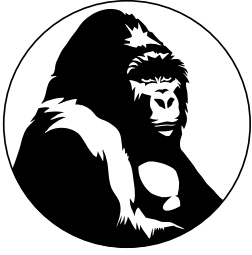
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<http://www.primate-sg.org/apes/>

## Gorillas on the IUCN Red List of Threatened Species

A recent change in the mountain gorilla listing on the IUCN Red List





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of Threatened Species (<https://www.iucnredlist.org/>) from Critically Endangered (CR) to Endangered (EN) received extensive coverage in the media, not only because positive conservation stories are so rare, but also because this downlisting had been debated for a number of years (Harcourt 2007). The simple definition of an EN taxon is one considered to be facing a very high risk of extinction, whereas a CR taxon is considered to be facing an *extremely* high risk of extinction. These definitions are underpinned by quantitative rules relating to size of the population, the geographic range, or rate of population decline (IUCN Standards and Petitions Subcommittee 2017). Since it was established in 1964, the IUCN Red List has evolved into the world's most comprehensive source of information on the conservation status of thousands of species (<https://www.iucn.org/about/iucn-brief-history>).

A look back at the history of gorillas on the Red List provides less information than one might hope, first because so little was known about most gorilla populations, and second because threat categories were based on subjective expert opinion without the guidance of objective criteria. During the first few decades of the Red List's development and evaluation, IUCN published regular updates that simply listed taxa with their range countries and a category of threat (PDFs are available via the IUCN Library Portal <https://portals.iucn.org/library/dir/publications-list>). The first detailed assessments of primates were published in a Red Data Book (Lee et al. 1988), when gorillas were considered to be a single species, *Gorilla gorilla*, with three recognised subspecies. Mountain gorillas were uplisted to CR in 1996 and, at that time, the subspecies classification of the Bwindi population was under debate (Sarmiento et al. 1996). The Nigerian "subpopulation" of gorillas (now "Cross River") was listed as CR in the

same year, whereas all other African ape taxa were classed as EN.

In 2001, the Red List achieved a higher level of rigour when IUCN published Version 3.1 of its categories and criteria, developed through years of testing and consultation (Mace et al. 2008; Collen et al. 2016). Three categories of threatened species were defined: Critically Endangered, Endangered and Vulnerable, together with five criteria (A–E) based on population dynamics, geographic range and risk factors, along with numerous qualifying subcriteria. Also in 2001, the taxonomy of gorillas was revised by Groves (2001), who recognised two species – the eastern and western gorilla. Since taxa are usually reassessed at 5–10 year intervals, this "new" arrangement was not immediately reflected in the Red List.

Compiling and evaluating the best and most up-to-date information available on population status and the threats to a group of taxa, and recommending a Red List classification for each taxon, are among the key responsibilities of IUCN Species Survival Commission (SSC) Specialist Groups. Between 2006 and 2008, members of the Primate Specialist Group (PSG) reassessed all great ape taxa; however, little precise information about their population sizes existed, with the exception of the two least-numerous gorilla taxa – the mountain gorilla and the Cross River gorilla (described as a subspecies by Sarmiento & Oates 2000 and recognised by Groves 2001). To address the difficulty of assessing the global status of great apes while survey data remained piecemeal and dispersed, the Max Planck Institute for Evolutionary Anthropology established the IUCN SSC Ape Populations, Environments and Surveys (A.P.E.S.) database in 2005 (Kuehl et al. 2007).

The uplisting of western lowland gorillas from EN to CR made big news in 2008, when Peter Walsh was able

to model the impacts of poaching and Ebola virus disease on this subspecies and to predict a population reduction exceeding 80% over three generations (as stipulated in the Red List guidelines). At that time, we strongly suspected that Grauer's gorillas should also qualify for a CR listing, as threats to their survival were exacerbated by civil war and progressive fragmentation of the forests in eastern Democratic Republic of Congo (DRC). Armed groups, refugees and internally displaced people were putting enormous pressure on the region's natural resources; however, we lacked the quantitative data needed to demonstrate that the decline of Grauer's gorillas was likely to reach the 80% threshold.

Meanwhile, although mountain gorillas in Rwanda and Uganda were thriving, the situation in North Kivu (eastern DRC) deteriorated drastically while we were reconsidering the subspecies' Red List status. In 2006, a crisis was declared in Virunga National Park due to high levels of poaching by armed militia, and in 2007, at least 10 mountain gorillas were massacred. Heavy fighting with the army did not stop the advance of a group of rebels, who occupied the Mikeno Sector of the park for over a year (Reuters 2008). Government rangers were forced to evacuate the park, leaving the gorillas totally unprotected, and the PSG decided not to recommend a change to the Red List classification of mountain gorillas during this acute crisis.

In 2016, we began working on new assessments of all the great apes with significantly improved data quality and coverage. Massive efforts went into collating and analysing years of survey data from across the geographic ranges of both Grauer's gorillas (led by Andy Plumptre and Stuart Nixon) and western lowland gorillas (led by Samantha Strindberg and Boo Malsels). Both groups used new modelling techniques to predict population abun-



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dance, distribution and rates of decline, and both provided robust support for CR listings (Plumptre et al. 2016; Strindberg et al. 2018).

During the conflicts in eastern DRC, military personnel and numerous militia facilitated access to firearms and were implicated in illegal mining activities, both of which intensified poaching for bushmeat. Thousands of Grauer's gorillas were slaughtered as food for the illegal miners who invaded protected areas (Spira et al. 2019), and the gorillas' strongholds of Kahuzi-Biega and Maiko national parks were at the epicentre of this illegal resource extraction. Now able to quantify the Grauer's gorilla population reduction since 1994, we estimated a shocking 77 % drop in their numbers to just 3,800 individuals.

The reassessment of mountain gorillas was postponed until 2018 while new surveys were ongoing, the results of which (Hickey et al. 2019) confirmed that the Virunga population is increasing and, with 600 mature individuals, the population size has exceeded the CR threshold of 250 mature individuals. The recent assessment of mountain gorillas was, therefore, based on their restricted geographic range. The Red List's B criterion uses Area of Occupancy or Extent of Occurrence, and a limited number of locations, as measures of the spread of risk to a species, and this reassessment resulted in a change of category from CR to EN. This positive move on the Red List will, however, be reversed if threat levels increase drastically. The current Ebola outbreak in North Kivu presents a very

serious threat to the gorillas in Virunga National Park and is being closely monitored (Gorilla Doctors 2019). The ongoing threats to mountain gorillas are described in detail in the full version of the Red List assessment, which is available as a user-friendly PDF download at: <https://www.iucnredlist.org/species/39999/17989719>.

It is important to bear in mind that the IUCN Red List classifies extinction risk rather than rarity (Collen et al. 2016). These new assessments, undertaken in an objective manner with rigorous and transparent application of the IUCN categories and criteria, resulted in the more numerous and widely distributed Grauer's gorillas being classed as facing a greater risk of extinction than the smaller, range-restricted population of mountain gorillas. Although the distance separating the two subspecies that occur in the same region seems negligible, mountain gorillas are not targeted for their meat, whereas poaching and the commercial bushmeat trade are driving the rapid decline of Grauer's gorillas throughout their range. If these trends continue unabated – if the decimation of Grauer's gorillas is not halted, if mountain gorilla population growth is not constrained by available habitat and there is no catastrophic disease outbreak – 20 years from now, mountain gorilla numbers could surpass the total number of Grauer's gorillas remaining.

*Liz Williamson*

*My thanks to Anthony Rylands, Anna Behm Masozera and Mike Hoffmann for reviewing and significantly improving this article.*

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## Secrets of Western Lowland Gorilla Highly Social Behaviour Revealed

A recent study unveils some of the enigmas associated with the social behaviour of the western lowland gorilla (*Gorilla gorilla gorilla*) from the

*A reflection from the field on how conservation actions are addressing the threats to mountain gorillas and have enabled an improvement in their status will appear in a future issue of the Gorilla Journal.*



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impenetrable African equatorial forests; it was the result of an international cooperation bringing together the efforts of scientists at Spanish and French research institutions assisted by the SPAC Foundation gGmbH (Germany). This multidisciplinary study was based on five years of monitoring three gorilla groups habituated to human observers, and 4 months of intensive non-invasive genetic sampling of the entire population of an area of about 44 km<sup>2</sup> in the Ngaga Forest (Republic of the Congo). The research has revealed a dynamic social structure with frequent exchanges of individuals between groups favoured by a high degree of tolerance and peaceful coexistence among their members.

Since the dawn of great ape studies, it was clear that the western lowland gorillas inhabiting the remote rainforests of the Congo River basin and the mountain gorillas (*Gorilla beringei beringei*) from the volcanic slopes of the Rift Valley displayed remarkable differences in social behaviour. While in mountain gorillas the rare intergroup interactions frequently resulted in agonistic encounters/displays and even infanticide, aggressive interactions were exceptional among western lowland gorillas. Nonetheless, the scarce accessibility and visibility inside the forests had insofar limited most of the studies on western lowland gorillas to *bais*, open clearings that work as rendezvous for multiple family groups foraging on plants rich in mineral salts. Even though the frequent intergroup interactions were overtly peaceful at these sites, doubts remained about the real nature of western lowland gorilla ecology and behaviour in the surrounding dense forests where groups spent up to 99 % of their time (Magliocca & Gautier-Hion 2002). In this sense, *bais* could represent abundant but geographically restricted resources, possibly located outside gorilla ranges and that, as such, do not need to be de-

fended. Moreover, not all western gorilla groups have access to such unique landscape features. Consequently, the interactions between gorilla social units at these sites may not be representative of social behaviour within the forest.

The almost daily observations over 5 years (2013–2017) of three focal gorilla groups habituated to the presence of humans and with overlapping home ranges, allowed us to directly observe encounters between the groups in the forest. During the encounters, individuals from the different groups traveled, fed and even played peacefully together. The interactions were frequently driven by young gorillas, but all age classes participated and silverback males showed remarkable tolerance towards these interactions. In some encounters the three gorilla groups were found together, adding up to more than 50 individuals.

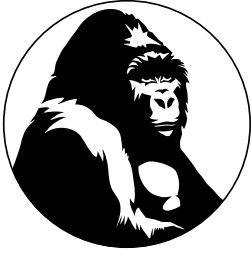
One could think that these non-aggressive interactions were exclusive for these habituated gorilla groups. However, the analysis of the population structure revealed that this high tolerance was a widespread phenomenon. The genetic analyses of fecal samples collected in night nests of social groups and lone individuals allowed the identification of more than 120 gorillas, the study of the relatedness between them, and the determination of the gorillas present in each social group. The field monitoring took place in a very reduced time period, from May to August 2013, to obtain a snapshot of the composition of the population at that time. Also, the monitoring took place in a small study area of ca. 40 km<sup>2</sup> to try to identify the great majority of the gorillas then present in the population. Surprisingly, we identified individuals of different age and sex moving from one group to another within just a few days, as well as other individuals found alone on some occasions and then integrated within groups on others. Some adult

females found in one group had offspring in another group, showing that they had moved between reproductive units and that immatures were admitted within a group even if their mother was not there, confirming the lack of infanticide suggested for this species (and instead common in mountain gorillas). Groups sampled on multiple days had quite variable individual composition, showing that not all individuals stayed together at all times. Immatures, the individuals that were observed involved in many of the intergroup interactions, were the ones that more frequently moved temporarily out of the group. This evidenced a very dynamic social system that goes beyond the group dynamics described in previous studies spanning multiple years (Arandjelovic et al. 2010, 2014; Hagemann et al. 2018).

The emerging picture is that of a modular society resulting from the interplay of moderately strong ties which do not prevent the transfer of individuals between different social units, and a high degree of tolerance between groups. This could have promoted information exchange between groups and may have been important in the evolutionary history of the species. However, this behaviour could have also increased the impact of infectious diseases that have killed more than 95 % of the individuals in some western lowland gorilla populations in the Republic of the Congo (Bermejo et al. 2006; Caillaud et al. 2006). These events of high mortality warranted the inclusion of the species as “critically endangered” in the Red List of threatened species by IUCN (International Union for Conservation of Nature).

Overall, the results of this research evidence the importance of integrating *in situ* monitoring studies with non-invasive genetic analyses to understand the structure and social dynamics in secretive or cryptic animal species. Also, the findings show the key role of social





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**Immatures of different groups meeting in Ngaga forest, Republic of the Congo.**

*Photo: Germán Illera*

behaviour in disease transmission and establishment of effective conservation strategies in the long term.

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## **Original article**

*Forcina, G., Vallet, D., Le Gouar, P. J., Bernardo-Madrid, R., Illera, G., Molina-Vacas, G., Dréano, S., Revilla, E., Rodríguez-Tejiero, J. D., Ménard, N., Bermejo, M., Vilà, C. (2019): From groups to communities in western lowland gorillas. *Proceedings of the Royal Society B: Biological Sciences* 286 (1896)*

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## **First Video Footage of the Elusive Ebo Gorillas in Cameroon**

Gorillas were ‘discovered’ in the Ebo forest in 2002 (Morgan et al. 2003) and since then the Zoological Society of San Diego’s Ebo Forest Research Project (EFRP) has been working with adjacent village communities to conserve this unique and small gorilla population (Mfossa et al. 2018). Since 2012, volunteers from three communities (Iboti, Logndeng and Lognanga) adjacent to the gorilla habitat have been monitoring this small

gorilla population as part of the ‘Club des Amis des Gorilles’ (CAG) initiative, raising awareness of the value of this population and promoting alternative sustainable livelihoods to reduce the pressure on the gorilla habitat and secure the gorillas for posterity (Abwe & Morgan 2012).

To minimize risk to these gorillas, all research on this population, including CAG monitoring, use circumstantial evidence (nests, tracks and feeding signs) to determine the behavioural ecology of this population. Even when direct sightings are inadvertently made, observation time is kept to a barest minimum to avoid habituation to humans, since hunting is still prevalent in the area. To further affirm the presence of gorillas in the Ebo forest and thus increase pride in the adjacent human communities, the EFRP and CAG decided to install camera traps across the gorilla habitat, to obtain evidence of the existence and nature of these elusive gorillas.

We had funding from the British Ecological Society – Ecologists in Africa grant for the placement of 30 camera traps in the gorilla habitat. The cameras were systematically placed in an area of c. 30 km<sup>2</sup> across the gorilla habitat in June 2015 for a duration of 12 months. Every 3 weeks, a CAG-EFRP team serviced the cameras by replacing memory cards and batteries.

The first footage of Ebo gorillas came in January 2016, at last! This and subsequent videos and still pictures captured a total of 8 individuals including a pregnant female and 2 juveniles – there is some hope for the future! In addition to gorillas, we also had footage of chimpanzees, guenons, elephants and duikers that are sympatric with the gorillas.

The first footage of Ebo gorillas was received with enthusiasm by the adjacent communities as well as in the conservation world. The paramount traditional ruler of the Ndokbiakat clan, Sa



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Majesté Dipita Gaston, exclaimed “at last, we can have the images of our gorillas hanging on our walls”.

This was an important milestone in efforts to conserve this unique gorilla population. The results of this project were shared across a wide audience using various media outlets including a film documentary, posters, newsletters and YouTube posting: <https://www.youtube.com/channel/UCgjYLigfCSyYStxvhvCVB6A>

The Ebo gorillas are geographically intermediate between the two subspecies of the western gorilla (*Gorilla gorilla*): western lowland gorilla (*G. g. gorilla*) and Cross River gorilla (*G. g. diehli*) south and north of the Sanaga River respectively. The taxonomic affinity of this small and unique population is still uncertain. These gorillas and other species of conservation concern in the area including chimpanzees, Preuss's red colobus and drills are threatened by unsustainable human activities including hunting and habitat destruction through industrial agriculture, logging and mineral exploitation. We hope that a reclassification of the Ebo forest into a national park and sustained grassroots support will preserve the Ebo gorillas and other species for posterity.

*Daniel Mfossa, Malenoh Ndimbe, Ekwoe Abwe and Bethan Morgan*

*We gratefully acknowledge the Government of Cameroon for ongoing cooperation and research permission. Malenoh Ndimbe extends sincere gratitude to the British Ecological Society for providing the equipment funding for this project. We are indebted to all our donors including the USFWS, the Arcus Foundation, the Margot Marsh Biodiversity Foundation, Zoo La Palmyre, and the Whitley Fund for Nature who have supported our work over the years. We also enjoy enormous support for our work and collaboration from traditional authorities from Iboti, Logndeng and Lognanga villages*



**Malenoh Ndimbe (left) and Elie Ndobon (right) installing a camera trap in the Ebo forest**

*Photo: ZSSD/Daniel Mfossa*

*as well as administrative authorities in Yingu – thank you.*

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**The Coopers arrive at the auditorium**

*Photo: John and Margaret Cooper*

## Pre-Congress Lecture and Meeting of Gorilla Enthusiasts, Kenya 2018

On the evening before the start of the IPS Congress, Saturday, 18 August 2018, the Kenya Museum Society welcomed guests, including members of the public, to a lecture by John E. Cooper and Margaret E. Cooper entitled “Gorillas in the midst of war: health studies on one of our closest relatives”. The lecture, which was preceded by refreshments, was held in Nairobi National Museum’s Louis Leakey Auditorium.

The presenters, John and Margaret Cooper, are a husband and wife team, veterinary pathologist and animal lawyer, who discussed their own experience of gorillas, based on two years (interrupted by the Rwandan genocide, April–July 1994) of working with the mountain gorillas in Central Africa and ongoing studies of gorilla skeletal material in many parts of the world. This research led to the authoring of a book by John and his colleague Gordon Hull entitled *Gorilla Pathology and Health, with a Catalogue of Preserved Materials* which was published by Academic Press in 2017 and reviewed in the *Gorilla Journal* by the late Colin Groves.

The Coopers pointed out in their lecture that although gorillas do not occur in the wild in Kenya, the National Museum of Kenya (NMK) has a substantial collection of gorilla material and Kenyans have contributed to studies on the two extant species.

The Coopers outlined the history of the discovery and description of the two species of gorilla and the role played by Louis Leakey and others in learning more about the biology of these usually gentle and elusive great apes. In his time as curator of the Coryndon (now National) Museum Louis Leakey instigated Dian Fossey’s studies on mountain gorillas. Dian Fossey was a fre-





## GORILLAS



**Ogeto Mwebi with human and gorilla pelvis bones from the NMK**

*Photo: John and Margaret Cooper*

quent visitor to the National Museum and lectured there.

Apart from their intrinsic importance, as endangered species in precarious habitats, the mountain and the lowland gorilla are of great relevance to our understanding of health in primates, including humans. Gorillas are susceptible to both infectious and non-infectious diseases, ranging from *Ebolavirus* infection to snare injuries, and they serve as valuable natural 'models' of human cardiovascular and osteoarthritic disorders. Working with live gorillas in the wild or in captivity, especially when coupled with museum studies on preserved material, provides opportunities to learn more about the role of disease and pathology in *Gorilla* spp., some of it relevant also to *Homo sapiens*. The collation and publication of data about gorillas is helping to fill gaps in our knowledge, and African scientists, including a number of Kenyans, are playing an increasingly significant role in this task and in innovative research.

The Coopers' lecture was followed by an interesting behind-the-scenes

tour of the Osteology Section of NMK, led by Ogeto Mwebi, Research Scientist and Head of Section, Zoology Department. He discussed the preparation, storage and correct use of skeletal material, especially when investigating wildlife crime, and showed the visitors material from a number of African species, including gorillas.

The afternoon finished with an invitation by the Coopers to join them for drinks and Kenyan "bitings" (snacks) at the United Kenya Club (UKC), near the University of Nairobi. The UKC was Kenya's first multiracial club (1946) and therefore of historical significance and interest. Appropriately, those attending the evening's hospitality and opportunity for networking included young and not-so-young guests from different African countries, either working with or interested in gorillas, as well as visitors from Europe. A very pleasant start to the IPS Congress the next day.

*John E. Cooper and Margaret E. Cooper*



**Some of those attending, from Kenya, Uganda, Germany and Britain**

*Photo: John and Margaret Cooper*





## READING

### Arcus Foundation

**Infrastructure Development and Ape Conservation.** State of the Apes Vol. 3. Cambridge (Cambridge University Press) 2018. 384 pages. Hardcover £ 74.99, ISBN 978-1-10842321-2. Paperback £ 29.99, ISBN 978-1-10843641-0. Open access PDF

All over the planet, infrastructure developments (roads, dams, etc.) may threaten the environment and the species living in the areas concerned. This volume discusses the effect of infrastructure on those areas where apes are living.

For animals in tropical rain forests the development of roads has a huge impact – for example, increasing the bushmeat trade. The construction of paved roads will increase dramatically during the coming decades, especially in Africa. This book documents the development of infrastructure in the past in Asia and Africa. It describes the roles of stakeholders and the impact that these activities have had on ape habitats and the apes themselves as well as on the local people and the economies of the habitat countries.

It becomes clear very quickly that the present practice is unsustainable. The situation is analysed in detail for several areas including Southern Cameroon, the Bukavu–Kisangani highway that crosses the Kahuzi-Biega National Park, and the Cross River area in Nigeria.

Another type of infrastructure discussed in the book is hydropower dams; they have been a major problem so far mainly in Asia, and several are being planned in Africa in the gorilla distribution area.

The second part of the book analyses the status of each ape species and its threats. The projected loss of forest habitat up until 2050 is estimated for each species. Fortunately, the situation for gorillas looks not as terrible as that for the Asian apes, however it is of course serious. The last part deals

with the situation of apes in sanctuaries which will become much more difficult as more habitat is lost.

*Angela Meder*

### Susan Snyman and Anna Spenceley

**Private Sector Tourism in Conservation Areas in Africa.** Wallingford (CABI Publishing) 2019. 256 pages, hardcover, £ 95. ISBN 978-1-78639355-5

### Benjamin B. Beck Unwitting Travelers: A History of Primate Reintroduction

This document describes the reintroduction of more than 24,000 apes, monkeys, lemurs, and lorises in 234 different programs between the 16<sup>th</sup> century and today. Primates are “reintroduced” when they are moved from captivity to the wild or from one place in the wild to another place in the wild. With only a single exception, the primates had no idea of where they were being taken or why: they were

truly unwitting travelers. They struggled to adapt and many did not succeed.

This is essentially a book for scientists, however it does tell many good stories: some of heart-wrenching misjudgement and cruelty, and others of heart-warming, inspirational outcomes. Almost half of all of the reasons given for primate reintroduction involved improving the welfare of the primates, “giving them a second chance”, and “returning them to where God intended them to be.” Some of the primates disagreed, expressing a preference for life in captivity.

Unwitting Travelers can be purchased for US\$40 at: [www.drbenjaminbeck.com](http://www.drbenjaminbeck.com) and <https://www.saltwatermedia.com/shop/unwittingtravelers>

### Guillaume Ancel

**Rwanda, la fin du silence.** Témoignage d'un officier français. Les belles lettres 2018. 250 pages, paperback. ISBN 978-2251448046

**For the six-volume set Mammals of Africa, edited by Thomas Butynski, Jonathan Kingdon and Jan Kalina, single volumes are available now. Links to online shops see picture at the right.**

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Volume II Primates

Edited by Thomas M. Butynski, Jonathan Kingdon & Jan Kalina

Bloomsbury 2013

WINNER OF THE DARTMOUTH MEDAL 2014

MAMMALS OF AFRICA VOLUMES I-VI



## BERGGORILLA & REGENWALD DIREKTHILFE

### New on the Internet

**Johannes Refisch, Serge A. Wich and Elizabeth A. Williamson (eds.) Report to the CITES Standing Committee on the Status of Great Apes.** United Nations Environment Programme Great Apes Survival Partnership, Nairobi, and International Union for Conservation of Nature, Gland 2018. 34 pages. Download PDF (6.57 MB): [http://static1.1.sqspcdn.com/static/f/1200343/28074160/1549314944563/GRASP\\_IUCN\\_2018\\_Report\\_to\\_CITES\\_on\\_the\\_Status\\_of\\_Great\\_Apes.pdf](http://static1.1.sqspcdn.com/static/f/1200343/28074160/1549314944563/GRASP_IUCN_2018_Report_to_CITES_on_the_Status_of_Great_Apes.pdf)

**Jena R. Hickey et al. Virunga 2015–2016 Surveys.** Monitoring Mountain Gorillas, Other Select Mammals, and Illegal Activities. Final Report. GVTC, IGCP & partners, Kigali, April 2019. Download PDF (3 MB): [http://igcp.org/wp-content/uploads/Virunga-Census-2015-2016-Final-Report-2019-with-French-summary-2019\\_04\\_24.pdf](http://igcp.org/wp-content/uploads/Virunga-Census-2015-2016-Final-Report-2019-with-French-summary-2019_04_24.pdf)

**Inoussa Njumboket and Jean-Marie Nkanda Chinese investments and forest land use:** situations and trends in the Democratic Republic of Congo. IIED March 2019. Project report, 52 pages. Download PDF (1.1 MB): <https://pubs.iied.org/13608IIED/>

**Isilda Nhandumbo, Inoussa Njumboket, Jean-Marie Nkanda, Anna Bolin, James Mayers Chinese investment in DRC:** a view from the forest. IIED March 2019. Briefing, 4 pages. ISBN:978-1-78431-664-8. Download PDF (167 kB): <https://pubs.iied.org/pdfs/17640IIED.pdf>

**EIA Toxic Trade.** Forest crime in Gabon and the Republic of Congo and contamination of the US market. Washington DC (EIA) 2019. 84 pages.

Download PDF (17.5 MB): <https://eia-global.org/reports/20190325-toxic-trade>

**Rosalien Jezeer and Nick Pasiecznik (eds.) Exploring inclusive palm oil production.** EFRN news 59. April 2019. 191 pages. ISBN 978-90-5113-141-3. ISSN 1876-5866. Download PDF (9 MB): <http://www.efrn.org/publications/exploring+inclusive+palm+oil+production>

**Breaking the Silence:** Harassment, sexual violence and abuse against women in and around industrial oil palm and rubber plantations. March 2019. 11 pages. Download PDF (177 kB): [https://wrm.org.uy/wp-content/uploads/2019/03/Breaking-the-Silence\\_8March2019.pdf](https://wrm.org.uy/wp-content/uploads/2019/03/Breaking-the-Silence_8March2019.pdf)

**Midterm report of the Group of Experts on the Democratic Republic of the Congo.** December 2018. 58 pages. UN Security Council document S/2018/1133. Download PDF (4 MB): <https://undocs.org/S/2018/1133>

**Détérioration de la situation des droits de l'homme dans le Masisi et le Lubero (Nord-Kivu) et défis relatifs à la protection des civils entre janvier 2017 et octobre 2018.** MONUSCO December 2018. 36 pages. Download PDF (1.6 MB): [https://www.ohchr.org/Documents/Countries/CD/Rapport\\_Masisi\\_Lubero\\_19Dec2018.pdf](https://www.ohchr.org/Documents/Countries/CD/Rapport_Masisi_Lubero_19Dec2018.pdf)

**Enough Project Leveraging Reform:** Fighting Corruption in Post-Election DR Congo. May 2019. 6 pages. <https://enoughproject.org/policy-briefs/leveraging-reform-dr-congo>  
Download PDF (786 kB): [https://enoughproject.org/wp-content/uploads/LeveragingReform\\_Enough\\_May2019.pdf](https://enoughproject.org/wp-content/uploads/LeveragingReform_Enough_May2019.pdf)

### Impressions from the 2019 Members' Meeting in Frankfurt Zoo



*Marie Manguette (Max Planck Institute for Evolutionary Anthropology), Christine Mentzel (Frankfurt Zoological Society) and Wolfram Rietschel during their presentations*  
All photos: Angela Meder



# BERGGORILLA & REGENWALD DIREKTHILFE



Head keeper Carsten Knott during the tour through the ape house

Photo: Angela Meder

## Finances

### Income in 2018

|                      |                        |
|----------------------|------------------------|
| Subscriptions        | 22,350.00 euro         |
| Donations            | 101,774.68 euro        |
| Sales                | 171.70 euro            |
| Currency differences | 4,956.39 euro          |
| Refund from meeting  | 184.65 euro            |
| <b>Total</b>         | <b>129,437.42 euro</b> |

### Expenses in 2018

|                        |                |
|------------------------|----------------|
| Administration         | 1,963.67 euro  |
| Material for sale      | 74.70 euro     |
| <i>Gorilla Journal</i> | 2,375.58 euro  |
| Website (upgrade)      | 16,525.26 euro |
| Postage                | 1,586.74 euro  |
| Pay/top-ups            | 6,982.15 euro  |

### Virunga Conservation Area

|   |               |
|---|---------------|
| Gorilla Doctors, pistols and rifle for administration of anaesthetics and antibiotics | 6,000.00 euro |
| Gorilla Doctors, post-mortem facility   | 6,000.00 euro |

### North of Maiko National Park

|        |               |
|--------|---------------|
| Survey | 5,000.00 euro |
|--------|---------------|

### Sarambwe

|                     |                |
|---------------------|----------------|
| Support of trackers | 20,135.50 euro |
| Equipment           | 1,573.00 euro  |

### Mt. Tshiaberimu

|                 |                |
|-----------------|----------------|
| Tracker top-ups | 10,837.00 euro |
| Equipment       | 1,270.00 euro  |

### Itombwe

|                |                 |
|----------------|-----------------|
| Ranger top-ups | 36,5735.08 euro |
|----------------|-----------------|

### Bwindi

|                  |               |
|------------------|---------------|
| Gorilla research | 9,600.00 euro |
|------------------|---------------|

### Cross River area, Nigeria

|                         |               |
|-------------------------|---------------|
| Gorilla guardians Afi   | 8,085.38 euro |
| Tengwood bushmeat study | 5,000.00 euro |

|              |                        |
|--------------|------------------------|
| <b>Total</b> | <b>139,744.36 euro</b> |
|--------------|------------------------|

## Our Donors

From November 2018 to April 2019 we received major donations by Africa-scout Sabine Kastner, Arkon Metallbau, Fredrik Bakels, Emilio Garcia Barea, Walther and Jutta Beine, Hedwig Below, Marc Beyer IT Consulting, Manuel Blatter, bw 1. Verwaltungsgesellschaft, Colibri Reisen, Monika Daub, Felix Diehl, Kai-Uwe Dobberkau, Alexandra Ebenbeck, Michael Enders, Hartmut and Petra Engelen, Patrick Fiala, Ralf and Birgit Fiala, Jürgen and Irmgard

Friedrich, Gisela Fruehbrodt, Katharina Fuerstner, Johannes Gahrman, Gaia Park Kerkrade, Gorilla Gym Hamburg, Jens Hadler, Cornelia Hein-Schneider, Hans Michael Henkst, Birgit Höfer, Marieberthe Hoffmann-Falk, Philipp Hülsdonk, Helga Innerhofer, Susanne Jaros, Ulrich Karlowski, Sarah Kaufmann, Hartmann Knorr, Götz Kauschka, Renate Kewer, Egon Klier, Katrin Koemm, Dennis König, Sandra Kolberg, Karin and Manfred Linke, Timon Lissel, Ernst Loosen, Gisela Marquardt-Eissler, Hannelore Merker, Mario Metz, Harald Meurer, Michael Möhring, Ralf Neuhaus, Philipp Niermann, Ulrike Parlak, Manfred Paul, Heidi Peter-Rocher, Anne Pfisterer, Pieternella Pols Fonds, Birgit Reime, Geraldine Reischl, Anna Röttger, Daniela Rogge, Alfred Roszyk, Jens Rottacker and Sibylle Eck, Bernhard and Petra Quednau, Anneliese Schiller, Markus Schrempp, Gernot/Cornelia Schröder, Andreas Schröter, Schwaben Park Kaisersbach, Sabine Schwarz, Stefanie Schweers, Eva-Maria Schweikart, Elke Seeger, Frank Seibicke, Stephanie Skolik, Sebastian Spitzer, Hartmut Stade, Heinz Stelter, Andreas Strohmaier, Christen and Chr.-Stuttgen, Tiergarten Heidelberg, Tierschutzverein Krefeld und Umgebung, Wongsakorn Tathanom, Alina-Camelia Toader, Paul Vogt, Hann-Jörg Walther, Heiko Weber, Rüdiger Weis, Claudia Weller-Warner, Manfred Wese, Christof Wiedemair, Wilhelma Stuttgart, Heinz and Elisabeth Zaruba, Johannes Zerhusen and Rebecca Zindler, Zoologischer Garten Saarbrücken. This time we also received donations in the name of several people who had died; as they were gorilla friends, the visitors of the funeral ceremonies were asked to donate for gorilla conservation.

Many thanks to everybody, including all the donors that could not be listed by name here. We are grateful for any support!